Testimony of
Mr. Bruce Noel
Chairman, Ethanol Committee
National Corn Growers Association

Before the
House Committee on Agriculture
Subcommittee on Department Operations, Oversight, Dairy, Nutrition, and Forestry

Public Field Hearing
Review of the Future of Renewable Fuels and Flex-Fuel Vehicles

Rochester, Michigan
May 22, 2006

Good morning, and thank you Chairman Gutknecht and members of the Committee, for giving me the opportunity to testify before you today about a key issue facing our nation today – energy, national and economic security. With gasoline prices at record levels, petroleum imports rising, domestic energy production declining, and the nation's energy crisis slowing economic growth, now is the time to maximize the production and use of domestic renewable fuels.

My name is Bruce Noel, and I am Chairman of the Ethanol Committee of the National Corn Growers Association (NCGA). I also serve as the Treasurer of the Corn Marketing Program of Michigan. My wife, Alice, and I grow corn and soybeans on our family farm in Leslie, Michigan.

NCGA was founded in 1957 and represents more than 33,000 dues-paying members from 48 states. NCGA also represents the interests of the more than 300,000 farmers who contribute to corn checkoff programs in 19 states, including Michigan. NCGA's mission is to create and increase opportunities for corn growers and to enhance corn's profitability and use.

For more than 20 years, NCGA has worked side by side with farmers, industry and government to build the ethanol industry from the ground up. Corn growers celebrated the August signing by President George W. Bush of the Energy Policy Act of 2005, which included a 7.5 billion gallon renewable fuels standard (RFS) by 2012. This is a significant accomplishment for corn growers as it establishes a floor for ethanol production, which uses corn as its chief feedstock, and ensures a solid market for corn growers well in the future.

Our nation's farmers are the best in the world at growing corn, which means that we must continually grow existing markets and discover new ones for our product. Corn growers have proudly invested in this growing ethanol industry that is doing good things for America. The ethanol market is the single most successful and fastest growing value-added market for farmers. Nearly 50 percent of all U.S. ethanol plants are farmer-owned.

With increased interest in ethanol, production at ethanol plants is above projected capacities and investments continue to grow for new facilities. Michigan has one ethanol plant operating today, Michigan Ethanol, LLC, that began operation November 2002 in Caro. This plant uses approximately 20 million bushels of corn each year and has been operating above its expected 40 million gallon capacity. The plant provides thirty-three jobs for the local community.

Three more ethanol plants are currently under construction in Michigan. U.S. Bio Woodbury, located in Lake Odessa, will utilize 15 to 17 million bushels of corn to produce 45 million gallons of ethanol annually, and add over 35 jobs to the local community when it begins production in September 2006. Andersons Albion Ethanol, LLC is under construction in Sheridan Township north of Albion. The plant will annually produce 55 million gallons of ethanol, and is planning on starting production in August 2006. Midwest Grain Processors broke ground in August on their ethanol plant in Riga Township near Blissfield. With a projected start-up date of December 2006, the plant is permitted to produce 57 million gallons of ethanol annually, utilizing approximately 20 million bushels of corn.

Another plant is in the final permitting stages. Marysville Ethanol LCC will have an annual capacity of 50 million gallons to be located in Marysville. The plant would require 18 million bushels of corn annually.

Two more projects have recently been announced. Next Gen Energy, LLC announced plans to start the construction of a 50 million gallon ethanol plant in Kingsley. The plant would utilize about 18 million bushels of corn and provide about $110 million to the local economy. Liberty Renewable Fuels, LLC announced plans to build a new ethanol plant in mid-Michigan. The plant will be designed for the annual production potential of up to 100 million gallons of ethanol. Plans also call for the co-production of biodiesel on the same site.

As you can see, Michigan ethanol production looks to meet in-state consumer demand as well as potential markets in the Northeastern United States. Market demand for ethanol in the Northeast is already high and is projected to increase in the future. This region of the U.S. currently does not have the capacity for ethanol production because they lack easy access to high volumes of corn. These states are still interested in ethanol, especially as a clean burning additive. Michigan is uniquely positioned to supply the clean burning additive – ethanol – to replace MTBE to this region.

The U.S. ethanol industry is expanding at a dramatic rate. In 2005, the industry produced just over 3.9 billion gallons of ethanol, nearly twice the amount produced in 2002. More than 1.4 billion bushels of corn -- or 13.6 percent of total corn use -- went to ethanol production in 2005. Rapid growth is expected to continue well into the future. The considerable increase in corn use for ethanol has caused many traditional corn customers to question how feed, food, and export markets will be affected by increased ethanol production. Among the most frequently asked questions are: Will there be enough corn to satisfy feed, food, and export demand, as well as the growing demand for ethanol? How much corn can go to ethanol without significantly disrupting other markets?

Increasing Corn Yields

The corn yield curve is increasing at an accelerated rate due to advances in biotechnology and improved cropping practices. Increased yields allow growers to harvest considerably more corn without significantly increasing acreage. Growers set a new yield record in 2004 with 160.4 bushels per acre. The previous high was 142.2 bushels per acre (bu/acre) set in 2003. And in 2005, despite drought conditions in the central Corn Belt, growers still managed the second-highest average yield on record with 147.9 bu/acre.

Based on a 15-year trend line (1990-2004), average yields are projected to hit 162 bu/acre by 2010 and 173 bu/acre by 2015. To illustrate the impact of incremental yield growth, consider that an increase of just two bushels per acre from one year to the next results in an additional 150 million bushels of corn. That additional corn could be used to produce 420 million gallons of ethanol.

New biotech hybrid technology will further accelerate the yield curve. Transgenic traits offering increased drought resistance and enhanced nitrogen fixation are among the exciting new developments coming to market in the mid-term.

Incremental Acreage Shifts

As corn demand continues to increase due to ethanol, some acreage may be shifted to corn away from other crops such as soybeans, and to a lesser degree cotton and wheat. U.S. farmers make their plantings decisions based on demand signals from the marketplace. If demand for corn is high and projected revenue-per-acre is encouraging, corn acres will likely increase. Some portion of the 35 million acres currently dedicated to the Conservation Reserve Program could also be brought back into production. ProExporter Network projects 86 million acres may be planted to corn by the 2011-12 crop year, an increase of about five percent from the 05-06 planted acreage of 81.8 million acres.

For every additional 1 million harvested acres, roughly 150 million bushels of corn will be added to total supply (assuming a conservative future average yield of 150 bu/acre). In other words, 1 million harvested acres translates into an additional 420 million gallons of ethanol.

Demand for Non-Ethanol Corn Use Is Flat

Corn use for livestock feed is not projected to grow significantly in the long term. Economists project livestock use to average about 5.5 billion bushels between 2007 and 2016, down from about 6.1 billion bushels in both 04-05 and 05-06. Export use is also projected to be flat. Many economists project export use to average 1.8-2.0 billion bushels between 2007 and 2016. Though slightly more bullish on exports, USDA's baseline forecast also shows flat trends in feed use and export. It could be argued that total non-ethanol corn use is likely to flat-line at about 9.1 billion bushels (high case) in the long-term. Accordingly, increased production can go to ethanol without radically affecting traditional markets.

DDGS Will Increasingly Displace Corn in Feed Rations

Increased ethanol production will generate increased supplies of distillers grains, often referred to as DDGS. These high-protein co-products will increasingly displace corn in beef and dairy rations, and eventually poultry and swine rations. The quality and transportability of distillers grains products are steadily improving and future products will be more prescriptive in nature. ProExporter projects distillers grains to displace more than 1 billion bushels of corn for feed per year starting in 2011-12.

Improved Ethanol Efficiency

Ethanol facilities are extremely energy efficient and actually yield more energy than gasoline. According to the U.S. Department of Agriculture (USDA), the net energy balance of ethanol indicates that ethanol produces 67 percent more energy than it takes to generate. In addition, a separate USDA analysis has found corn growers today use half the energy to produce a bushel of corn than they used just 25 years ago. As American farmers have become more efficient, so has ethanol production. New technologies and processes have had a dramatic effect on the energy required for ethanol production – greatly reducing energy input without adversely affecting the amount of ethanol and valuable co-products created. Those who claim that ethanol production is a net energy loser are using outdated information, old technology, and conveniently forgetting to mention that no fossil fuel can have a positive energy balance.

The ethanol industry is driven by innovation. New technologies will "squeeze" more ethanol out of a bushel of corn. The average ethanol conversion rate today is 2.8 gallons per bushel (gals/bu), up from 2.5 gal/bu several years ago. That conversion rate will soon be 3 gal/bu or higher due to new processing technologies entering the market.

Uniform application of these technologies across the industry would result in a dramatic increase in ethanol production without significantly altering corn acreage. The multiplying effect of increased ethanol conversion rates and increased corn yields results in a considerable gain in ethanol per acre.

E-10 and E-85

Americans drive billions of trouble-free miles using ethanol-blended gasoline every year. The majority of this gasoline has been E-10, a blend of 10 percent ethanol and 90 percent unleaded gasoline. In 2003, Michigan residents used 150 million gallons of ethanol and this statistic has significantly increased since then. In addition to E-10, our state, like many others in the cornbelt, is working to develop E-85.

There are more than six million Flexible Fuel Vehicles (FFV), capable of running on E-85 fuel (a blend of 85% ethanol and 15% unleaded gasoline), on the roads today. Over the past year, many of the automobile manufacturers have launched aggressive advertising campaigns to help inform consumers about their FFV models and ethanol as a fuel option.

A major hurdle to increase the use of E-85 is availability and infrastructure. In the past few months, several Michigan fuel suppliers realized the demand for E-85 and have made the fuel available at their stations.

Last September, Greenville, Michigan opened their first E-85 pump and began offering E-85 and biodiesel to its customers. In October, two E-85 pumps were also opened in the greater Detroit area; one in Dearborn Heights and one in Southfield. Early this spring, another E-85 pump was opened in Adrian, Michigan. Last month, yet another E-85 pump was opened in Jackson where it will be available for fleet and member use.

Several more E-85 pumps are anticipating opening over the next few months. Ann Arbor is anticipating the opening of an E-85 pump in their city, where they have been working in collaboration with their local Clean Cities Organization. A station in Canton, Michigan will soon have E-85 available to its customers. E-85 sales at the two Detroit E-85 pump locations have been very strong. The two stations have sold over 100,000 gallons of E-85 since the pumps were first opened last fall.

On April 18, 2006, Grand Rapids-based Meijer Inc. announced their plans to install 20 E-85 pumps in Michigan in a collaborative effort with General Motors and CleanFUEL USA.

So…how much ethanol can come from corn without disrupting other markets?

NCGA recently conducted an analysis of future corn use dynamics. Because of increasing yields, incremental acreage shifts, new technology and the displacement effect of distillers grains, it seems quite feasible that corn growers could harvest a crop of 14 to 15 billion bushels by 2015-16. Under this scenario (medium case), approximately 5.5 billion bushels would be available for ethanol conversion. At a conservative conversion rate of 2.9 gal/bu, this would equate to nearly 16 billion gallons of ethanol -- or roughly 10 percent of our nation's expected gasoline demand.

The increased use of ethanol in our nation's fuel supply is not the singular answer for America's dangerous dependence on foreign oil; however, ethanol is already playing an important role in our nation's overall energy policy, and will play an integral part in finding a long-term energy security solution. With the 7.5 billion gallon RFS in place, NCGA looks forward to working on behalf of corn growers with you and your colleagues in Congress to ensure even greater markets for ethanol in the future, and to ensure a continued significant role for growers in ethanol plant ownership. NCGA commends you, Chairman Gutknecht, on the introduction of H.R. 4357, bipartisan legislation requiring a 10 percent blend of renewable fuel in all gasoline sold in the United States by 2010.

Thank you again, Mr. Chairman, for the opportunity to testify today on this timely and important issue. NCGA looks forward to working with you in advancing ethanol legislation in the future.